

A TRANSPIRATION COOLED HEAT SINK AND A SELF CONTAINED COOLANT SUPPLY FOR SAME

ABSTRACT OF THE DISCLOSURE

5 A transpiration cooled heat sink, a self contained coolant supply and a method of
using a transpiration cooled heat sink and a self contained coolant supply is provided and
includes a heat sink base structure, the heat sink base structure having a coolant inlet for
receiving a coolant and a coolant outlet for distributing a coolant, wherein the heat sink
base structure defines at least one coolant channel disposed so as to be communicated
with the coolant inlet and the coolant outlet and a coolant distribution structure, wherein
10 the coolant distribution structure defines at least one distribution cavity and includes at
least one distribution inlet communicated with the distribution cavity and wherein the
coolant distribution structure is disposed relative to the heat sink base structure such that
the distribution inlet is communicated with the coolant outlet.